

ASF situation in Baltic states and Estonia 2023

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Webinar
19.12.23



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Topics

- ASF situation in Baltic states and Estonia
- Role of antibodies in epidemiology of ASF in wild boar
- Hunting and spread of ASF in wild boar
- Hunting as a tool to control ASF in wild boar

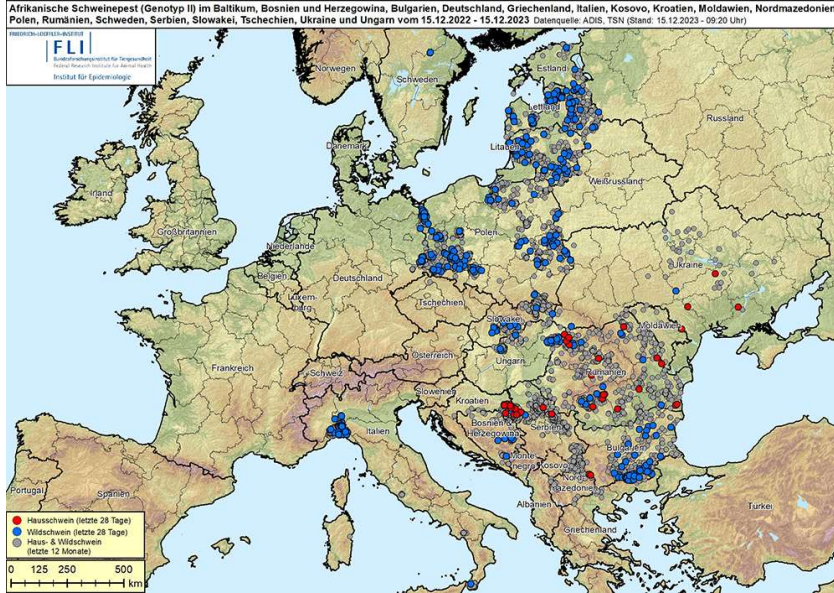
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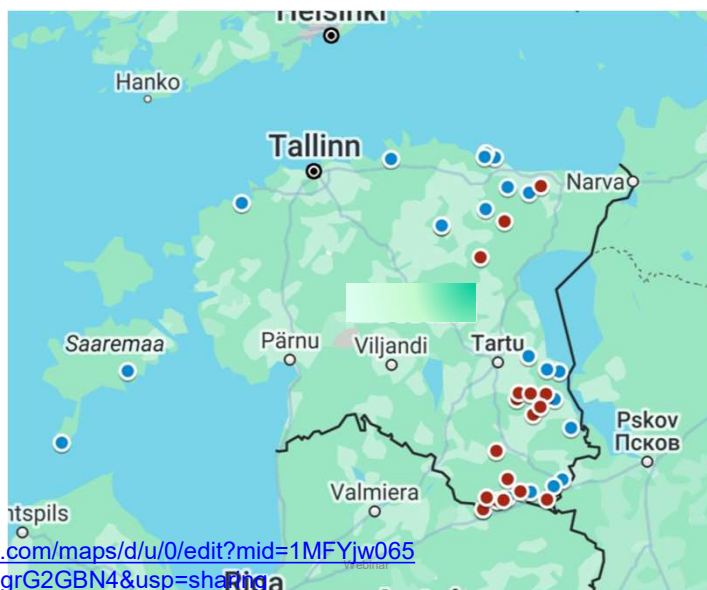
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ASF in wild boar 15.12.2023



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Main epidemiological features of the ASF epidemic in EU

- Wild boar driven epidemic wave
 - Main characteristics of the epidemic in wild boar
 - Slowly developing epidemic
 - Slow geographic expansion (3-50 km per year)
 - Epidemic phase followed by endemicity
 - Seasonality in occurrence
 - Main route of transmission seems to be **contact with infected carcass**
 - Based on mathematical model analysis
 - Strains with lower virulence seem to fade out (Zani et al, 2018; Vilem et al, 2020)
 - No true virus carrier state in wild boars or pigs have been demonstrated,
 - but **persistence of the virus at very low prevalence (<1%)** in a population of very low density (0.1 WB/km²) seems to be possible.
 - Virus may stay undetectable despite of ongoing surveillance for long periods of time?

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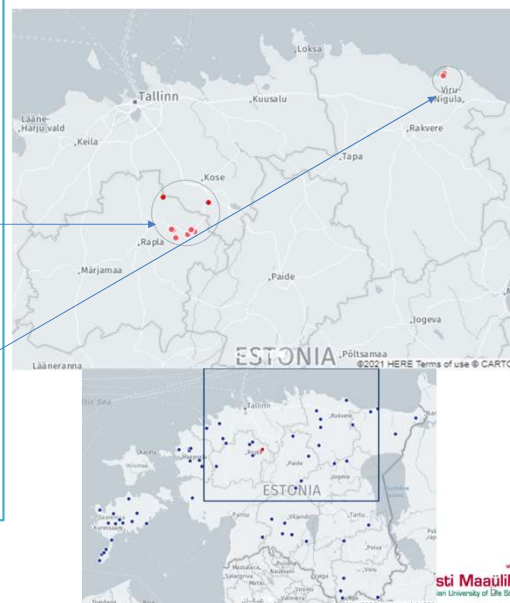
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Role of antibodies in ASF epidemiology

Re-emergency of virus positive WB in 2020 in Estonia

From February 2019 until August 2020 (~18 months) no virus (PCR) positive findings

- 28 Aug 2020 ASFV in found dead wild boar in **Rapla county**
~30 mo since last detection in the county (Feb 2018)
- 15 Dec 2020 ASFV in hunted wild boar in **Lääne-Viru county**
~ 40 mo since last detection in the county (Aug 2017)

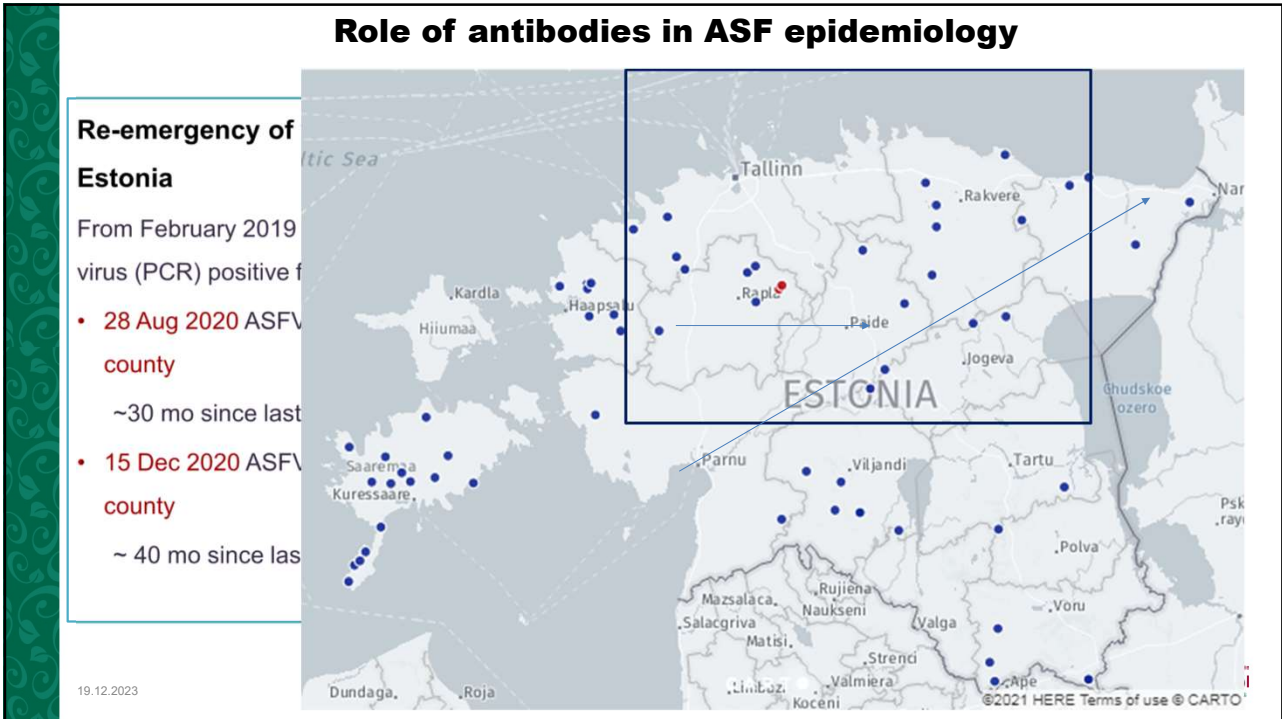


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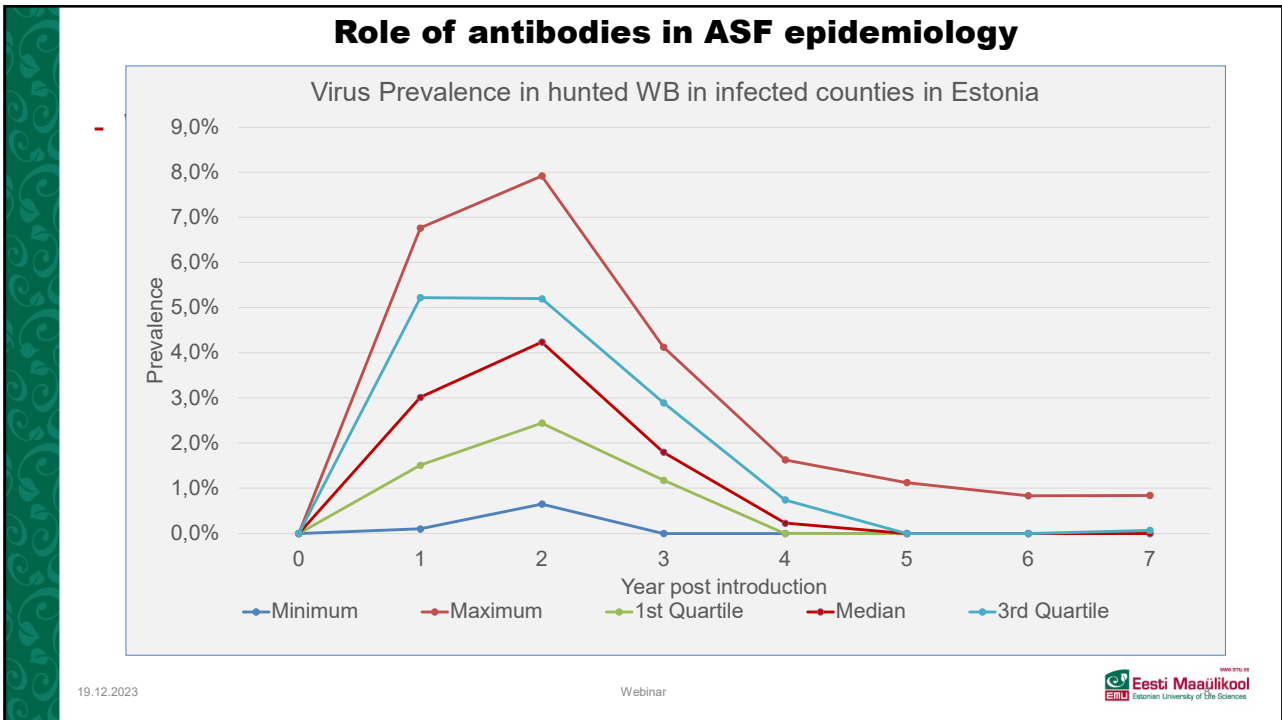
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Hunting and spread of ASF

- Wild boar driven epidemic wave
 - Main characteristics of the epidemic in wild boar
 - Slowly developing epidemic
 - Slow geographic expansion (3-50 km per year)

Velocity of ASF spread (meters/week)

Week

Legend: 2014 (blue), 2015 (green), 2016 (yellow)

Changes in spatial spread velocity in different seasons. Thin lines correspond to seasonal changes of speed (2014-2015 – blue; 2015-2016 – green; 2016-2017 – yellow). Dashed lines were calculated using lowess function to better illustrate velocity changes over time. Week 0 = first week of September in each season.

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Hunting and spread of ASF

- Wild boar driven epidemic wave
 - Main characteristics of the epidemic in wild boar
 - Slowly developing epidemic
 - Slow geographic expansion (3-50 km per year)
 - Epidemic phase followed by endemicity
 - Seasonality in occurrence
 - Estonia (sim. Latvia)

Slovakia (sim. LT, PL;HU)

Active surveillance

Passive surveillance

Active surveillance

Passive surveillance

Average proportion of wild boar testing positive to ASF (PCR) aggregated by calendar month and NUTS 3 region for hunted wild boar (active surveillance, left figure) or wild boar found dead (passive surveillance, right figure) EFSA Journal 2022;20(5):7290

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Eradication and control in wild boar

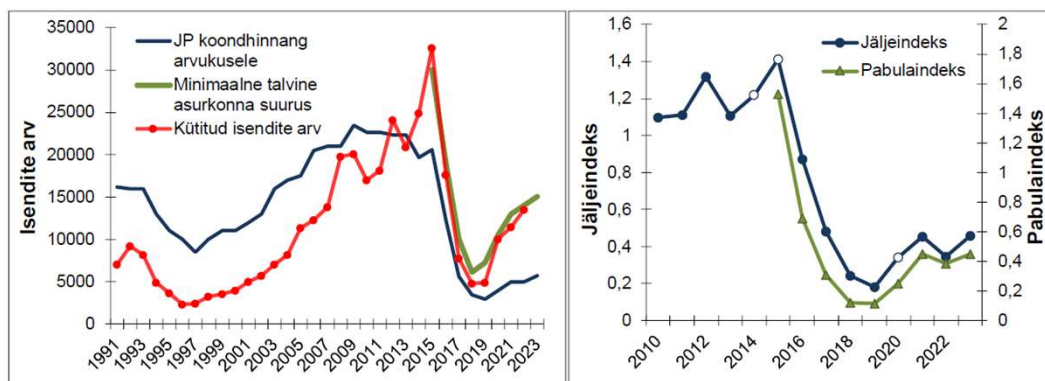
- Intensified hunting
 - (In Estonia set target: 1,5 WB/10 km² hunting ground by the end of hunting season 2017/2018; Prescribed hunting bag for every hunting club)
 - Targeted hunting of females (support in €/animal)
 - Additional feeding prohibited but bating allowed during hunting season
- Removal of carcasses of dead wild boar from the forest (burial or collection - compensation)
- Biosecurity measures at hunting and handling of carcasses and by-products
- *Fencing has not been used as a tool to stop the epidemic wave*

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Effects of ASF and implemented measures in wild boar population



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A survivor
by Seaküla, Simson

Thank you!

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